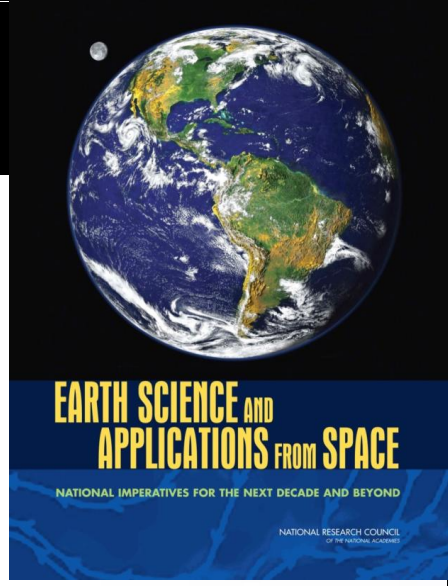
Earth Science & Applications from Space



The national strategy outlined here has as its overarching objective a program of scientific discovery and development of applications that will enhance economic competitiveness, protect life and property, and assist in the stewardship of the planet for this and future generations.

… a decadal program of Earth science research and applications in support of society – a vision that includes advances in fundamental understanding of the Earth system and increased application of this understanding to serve the nation and the people of the world.

NASA defines science to include research, applied research, and applications.

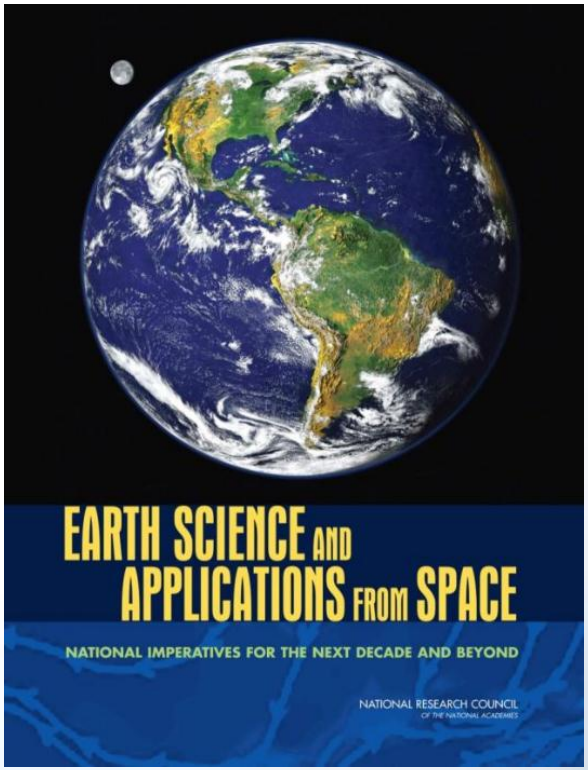
The relative emphasis on each is unique to an individual investigation.

2007 Earth Science Decadal Survey

Applications in Mission Life-cycle

Significant efforts for applications-oriented users to engage throughout the satellite mission lifecycle, especially planning, formulation, and development phases. Examples include:

- » Community Workshops
- » Early Adopters
- » Mission Applications Plans
- » Applications Traceability Matrices
- » Webinars
- » Tutorials
- » Program Applications leads for missions



Earth Science Missions – Early Adopters

Early Adopters

Purpose is to conduct pre-launch applications research to accelerate use of data after launch.

Organizations with clearly-defined needs for mission data products evaluate and demonstrate the utility of the data for their application and decision making.

Early Adopters:

- » Use data products prior to launch (simulated data and cal/val data from field campaigns)
- » Provide feedback on products and formats to increase applications value of mission
- » Streamline and accelerate use of data soon after launch and check-out
- » Supply own resources to do these activities

EA Video: https://youtu.be/e6WGTRmsPVg

SMAP: 50+ orgs are EAs from public and private-sectors, domestic & foreign

Earth Science Missions – Early Adopters

"The Early Adopters program has gotten whole other organizations and industries enthusiastic about the mission. Their early engagement with the mission insures their benefits will be available much sooner than would otherwise be the case."

– Kent Kellogg, *SMAP*

Other Missions Pursuing Early Adopters Programs

- *ICESat-2: EA program; has bi-annual calls for EAs*
- *SWOT: EA program*
- *PACE: EA program planned*
- *NI-SAR: Similar program*
- *GRACE-FO: Similar program*

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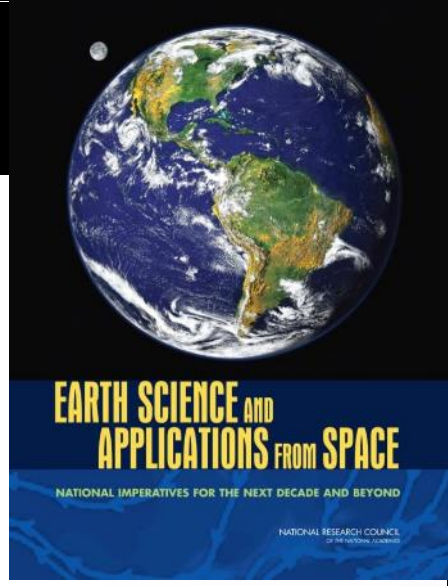

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ESD & Applied Sciences

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